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 ccgagggggc ttacgggaac tttttcgagg aacactgcta tgtcatcctc cacgtccccc
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540
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cgggtgcgga agcgcagggc gctgcggagg ccttccagca gcgcctacag gacgagctgg
                                                                        600
                                                                        660
ggggccagac cgtgctgcac cgcgaggcgc agggccacga gtccgactgc ttctgcagct
                                                                        720
acttccgccc gggaatcatc tacaggaagg gaggcctagc atctgacctc aagcatgtgg
                                                                        780
agaccaactt gttcaacatc cagcgactgc tgcacatcaa agggaggaag cacgtgtctg
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ccactgaggt ggagctctcc tggaacagct ttaataaggg tgacatcttc ctgctggacc
taggcaagat gatgattcag tggaatgggc ccaagaccag catttctgag aaggctcggg
                                                                        900
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                                                                       1020
gtgtggtgga tgatgaggcc aaagccccgg acctcatgca gatcatggag gctgtgctgg
                                                                       1080
gccgcagggt gggcagmctg cgtgycgcca cgcccagcaa ggatatcaac cagctgcaga
                                                                       1140
aggccaatgt tcgcctgtac catgtctatg agaagggcaa agacctggtg gtcctggagt
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                                                                       1440
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                                                                       1620
ggctgggccg tgtccagtac atcctgtacc tatggcaggg ccaccaggcc actgcggatg
                                                                       1680
agattgaggc cctgaacagc aacgctgagg aactagatgt catgtatggt ggcgtcctag
                                                                       1740
                                                                       1800
tacaggagca tgtgaccatg ggcagcgagc cccccactt cctcgccatc ttccagggcc
                                                                       1860
agctqqtqat cttccaggag agagctgggc accacggaaa ggggcagtca gcatccacca
caaggetttt ccaagtgeaa ggeactgaca gecacaacae caggaceatg gaggtgecag
                                                                       1920
cccgtgcctc atccctcaac tccagtgaca tcttcttgct ggtcacagcc agcgtctgct
                                                                       1980
acctctggtt tgggaaaggg ctgtaatggt gatcagcgtg agatggcacg ggtggtggtc
                                                                       2040
actgtcattt ccaggaagaa tgaggaaacg gtgctggagg gtcaggagcc tccccacttc
                                                                       2100
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                                                                       2160
ccccagcttc cagccacgac tgtttgagtg ctccagccac atgggctgcc tggtcctcgc
                                                                       2220
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                                                                       2400
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ctacaagtgg actagccacc catcccacaa ggaagtggtg gatggcagcc cggcagcagc
                                                                       2580
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caatggcagg gcaggtgccg tggccctgca ggccctcaag ggctcccagg acagctcaga
                                                                       2640
gaatgatytg gtgcgaagcc ccaagtcggc tggcagcaga accagcagct ccgtcagcag
                                                                       2700
                                                                       2760
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ggacctgcca gagggcgtgg accctgcccg cagggagttc tatctctcag actctgactt
                                                                       2820
                                                                       2880
ccaagatatc tttgggaaat ccaaggagga attctacagc atggccacgt ggaggcagcg
                                                                       2940
gcaggagaaa aagcagctgg gcttcttctg aacccaagcc ctctcgactg cccctatccc
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ctggacccca acatacctac aatgctgggg aggccctgct tccactcccc tcagaggctt
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ttggtcatcc tctgcgtgtc agtaaaagca
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<210> 52
<211> 61
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (58)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 52
Met Glu His Ala Ala Gly Leu Pro Val Thr Arg His Pro Leu Ala Leu
1 5 10 15
Leu Leu Ala Leu Cys Pro Gly Pro Phe Pro Ala Leu Leu Pro Leu
```

Leu Pro Trp Gly Tyr Pro Leu Ala Pro Pro Gly Leu Cys Lys Leu Pro 35 40 45

Gln Gly Ala Pro Leu Pro Cys Ser Ser Xaa Leu Thr Ser 50 55 60

<210> 53

<211> 243

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (15)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (190)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 53

Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala Xaa Gly 1 5 10 15

Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Val Ala Leu 20 25 30

Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala 35 40 45

Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val
50 55 60

Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Phe Val Leu Ala 65 70 75 80

Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln
85 90 95

Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu 100 105 110

Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu 115 120 125

Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala 130 135 140

Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr 145 150 155 160

Thr His Gln Val Ala Thr Arg Ser Ser Leu Ser Cys Arg Thr Thr Thr 165 170 175

Arg Ser Pro Leu Arg Ser Arg Cys Pro Cys Pro Trp Arg Xaa Cys Cys 180 185 190

Leu Thr Ser Leu Pro Arg His Trp Ile Cys Trp Val Asn Ser Phe Ser

195 200 205

Thr Leu Leu Thr Ser Ala Ser Gln Leu Pro Arg Leu Ser Ser Ile Ser 210 215 220

Thr Ser Ser Gln Leu Pro Cys Leu Pro Ile His Leu Ser Cys Arg Phe 225 230 235 240

Leu Ser Val

<210> 54

<211> 65

<212> PRT

<213> Homo sapiens

<400> 54

Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp 1 5 10 15

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro 20 25 30

Gly Ser Gln Gly Leu Gly Leu Asn Asn Cys Arg Ala Ala Cys His Asp 35 40 45

Leu Ser His Leu Leu Ser His Ser Ala Ile Asn Gln Thr Lys Glu
50 55 60

Phe 65

<210> 55

<211> 37

<212> PRT

<213> Homo sapiens

<400> 55

Met Leu Ala Arg Lys Ala Glu Arg Gly Ser Met Gly Thr Ala Arg Asp 1 10 15

Ser His Ile Leu Leu Val Cys Ser Val Val His Pro Ala Ser Ala Gln 20 25 30

Pro Val Tyr Thr Val
35

<210> 56

<211> 317

<212> PRT

<213> Homo sapiens

<400> 56

Met Leu Ser Phe Lys Leu Leu Leu Ala Val Ala Leu Gly Phe Phe 1 5 10 15

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Ala Arg 20 25 30

Arg Arg Cys Leu Asn Gly Asn Pro Pro Lys Arg Leu Lys Arg Arg 35 40 45

Asp Arg Arg Met Met Ser Gln Leu Glu Leu Leu Ser Gly Gly Glu Met 50 55 60

Leu Cys Gly Gly Phe Tyr Pro Arg Leu Ser Cys Cys Leu Arg Ser Asp
65 70 75 80

Ser Pro Gly Leu Gly Arg Leu Glu Asn Lys Ile Phe Ser Val Thr Asn 85 90 95

Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile Lys Cys Ala Leu Cys 100 105 110

Ser Pro His Ser Gln Ser Leu Phe His Ser Pro Glu Arg Glu Val Leu 115 120 125

Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys Asp Tyr Cys Lys Glu 130 135 140

Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly Phe Leu Gln Thr Thr 145 150 155 160

Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys Asp Gly Gly Leu Cys 165 170 175

Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly Pro Ala Ser Asn Tyr 180 185 190

Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu Glu Ile Ser Arg Lys
195 200 205

His Lys His Asn Cys Phe Cys Ile Gln Glu Val Val Ser Gly Leu Arg 210 215 220

Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly Ser Gln Arg Leu Phe 225 230 235 240

Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu Thr Pro Glu Gly Glu 245 250 255

Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys Leu Val Gln Ser Gly 260 265 270

Ile Lys Val Gly Phe Leu Asn Phe Ile Tyr Phe Cys Ala Gly Tyr Val 275 280 285

Asn Phe Ile Leu Val Leu Pro Ser Ser Leu Lys Val Phe Leu Cys Asn 290 295 300

Lys Arg Lys Asn Leu Ala Gly Glu Asn Lys Gly Ala Thr 305 310 315

<210> 57

<211> 41

<212> PRT

<213> Homo sapiens

```
<400> 57
Met Ser Trp Gly Ile Trp Lys Gly Leu Asp Leu Phe Pro Leu Ile Lys
                                     10
Gly Asn Ser Ser Leu Cys Leu Phe Leu Leu Val Val Pro Lys Gly Tyr
                                 25
Ser Ser Ser Glu Ile Thr Arg Ala Leu
<210> 58
<211> 57
<212> PRT
<213> Homo sapiens
<400> 58
Met Ser Leu Pro Cys His Leu Leu Pro Gly Leu Leu Gln Gln Leu Leu
                                      10
Thr Ser Leu Pro Ala Phe Gln Phe Ser Ala Pro Leu Gln Val Phe Ser
                                  25
Leu Asp Gly Leu Ser Leu Pro Ala Pro Lys Leu Leu Thr Ala Ser Leu
Cys Leu Gln Asp Glu Val Arg Ala Val
                          55
 <210> 59
 <211> 52
 <212> PRT
 <213> Homo sapiens
 <400> 59
 Met Ser Ser Trp Pro Phe Cys Pro Ser Leu Cys Phe Ser Leu Ser Asn
                  5
 Leu Ile Pro Gly Ser Gly Leu Leu Pro Val Glu Thr Gly Glu Leu Gly
                                   25
 Leu Leu Ser Ala Ala Tyr Leu Leu Pro Phe Thr Cys Ile Gln Leu Leu
                              40
 Gly Leu Gly Pro
      50
 <210> 60
 <211> 296
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (281)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 60
 Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg
```

Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu 25 20 Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg 50 Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met 105 100 Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys 120 115 Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys 135 Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val 155 150 Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile 170 165 Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly 180 185 Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val 200 Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln 220 215 Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg 235 230 Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn 245 250 Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp

Asn Ile Pro Glu Glu Gln Pro Val Xaa Ser Thr Pro Thr Thr Val Ser 275 280 285

265

Asp Gly Glu Asn Lys Lys Asp Lys 290 295

<210> 61

<211> 100

<212> PRT

<213> Homo sapiens

<400> 61

Met Arg Ala Phe Arg Lys Asn Lys Thr Leu Gly Tyr Gly Val Pro Met

1 10 15

Leu Leu Ile Val Gly Gly Ser Phe Gly Leu Arg Glu Phe Ser Gln 20 25 30

Ile Arg Tyr Asp Ala Val Lys Ser Lys Met Asp Pro Glu Leu Glu Lys
35 40 45

Lys Leu Lys Glu Asn Lys Ile Ser Leu Glu Ser Glu Tyr Glu Lys Ile 50 55 60

Lys Asp Ser Lys Phe Asp Asp Trp Lys Asn Ile Arg Gly Pro Arg Pro 65 70 75 80

Trp Glu Asp Pro Asp Leu Leu Gln Gly Arg Asn Pro Glu Ser Leu Lys
85 90 95

Thr Lys Thr Thr 100

<210> 62

<211> 47

<212> PRT

<213> Homo sapiens

<400> 62

Met Ile Gln Leu Ile Leu Gln Phe Trp Tyr Leu Phe Ser Met Leu Leu 1 5 10 15

Lys Pro Val Gln Gln Cys Gln His Cys Ser Gln Ile Thr Pro Ser Gly
20 25 30

Thr Met Pro Thr Ser Glu Thr Val Phe Leu Ile Leu Phe Leu Pro 35 40 45

<210> 63

<211> 162

<212> PRT

<213> Homo sapiens

<400> 63

Met Lys Met Val Ala Pro Trp Thr Arg Phe Tyr Ser Asn Ser Cys Cys $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Leu Cys Cys His Val Arg Thr Gly Thr Ile Leu Leu Gly Val Trp Tyr
20 25 30

Leu Ile Ile Asn Ala Val Val Leu Leu Ile Leu Leu Ser Ala Leu Ala 35 40 45

Asp Pro Asp Gln Tyr Asn Phe Ser Ser Glu Leu Gly Gly Asp Phe 50 55 60

Glu Phe Met Asp Asp Ala Asn Met Cys Ile Ala Ile Ala Ile Ser Leu 65 70 75 80

- Leu Met Ile Leu Ile Cys Ala Met Ala Thr Tyr Gly Ala Tyr Lys Gln
 85 90 95
- Arg Ala Ala Gly Ile Ile Pro Phe Phe Cys Tyr Gln Ile Phe Asp Phe 100 105 110
- Ala Leu Asn Met Leu Val Ala Ile Thr Val Leu Ile Tyr Pro Asn Ser 115 120 125
- Ile Gln Glu Tyr Ile Arg Gln Leu Pro Pro Asn Phe Pro Tyr Arg Asp 130 135 140
- Asp Val Met Cys Ser Glu Ser Tyr Leu Phe Gly Pro Tyr Tyr Ser Ser 145 150 155 160

Val Tyr

- <210> 64
- <211> 335
- <212> PRT
- <213> Homo sapiens
- <220>
- <221> SITE
- <222> (35)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <220>
- <221> SITE
- <222> (297)
- <223> Xaa equals any of the naturally occurring L-amino acids
- <400> 64
- Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala 1 5 10 15
- Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val 20 25 30
- Leu Pro Xaa Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser 35 40 45
- His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr 50 55 60
- Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly 65 70 75 80
- Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr 85 90 95
- Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Val Glu 100 105 110
- Gly Tyr Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg 115 120 125
- Gly Phe Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp 130 135 140

Glu Gly Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu 145 150 155 160

Leu Gln Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser 165 170 175

Leu Leu Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp 180 185 190

Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val
195 200 205

Asp Asn Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His 210 215 220

Arg Val Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu 225 230 235 240

Asn Phe Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp 245 250 255

Arg Phe His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu 260 265 270

Thr Trp Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val 275 280 285

Gln Leu Ile Thr Gly Val Asp Phe Xaa Gly Thr Thr Val Gly Phe Ala 290 295 300

Arg Val Ser Thr Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp 305 310 315 320

His Ser Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu 325 330 335

<210> 65

<211> 356

<212> PRT

<213> Homo sapiens

<400> 65

Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met Asp Tyr Arg Gly Arg
1 5 10 15

Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp Ala His Ala Val Asp 20 25 30

Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe Arg Gly Arg Gly Thr

Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser His Ala Asp Phe Arg 50 55 60

Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala Arg Glu Gln Ser Arg 65 70 75 80

Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu Asp Phe Arg Asp Lys 85 90 95 Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly Ser Gly Thr Thr Asp 100 105 110

Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser Asp Phe Arg Gly Arg

His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly Arg Glu Met Gly Ser 130 135 140

Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro Val Asp Pro Asn Ile 145 150 155 160

Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg Glu His Ser Gly Met 165 170 175

Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp His Thr Ile Glu Arg 180 185 190

Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu His Ser Glu Thr Arg 195 200 205

Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His Glu Ser Pro Ala Asp 210 215 220

Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln Asp Lys Ser Gln Leu 225 230 235 240

Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly Leu Phe Lys Glu Glu 245 250 255

Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr Asp Tyr Arg Ser Met 260 265 270

Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly Ser Gln Met Phe Gly 275 280 285

Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys Thr Ala Arg Asp Ala 290 295 300

Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr Gly Pro Ser Glu Glu 305 310 315

Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val Pro Glu Asp Ala Thr 325 330 335

Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro Asp Gly Met Pro Val 340 345 350

Lys Asn Cys Ser 355

<210> 66

<211> 125

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (55)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 66

Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Ala Val 1 5 10 15

Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro 20 25 30

Tyr Asn Val Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp 35 40 45

Trp Arg Ser Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp 50 55 60

Pro Leu Leu Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly 65 70 75 80

Arg Gly Leu Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg 85 90 95

Arg Gly Lys Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly
100 105 110

Gln Gly Glu Gly Met Pro Ser Ser Asp Phe Thr Thr Glu 115 120 125

<210> 67

<211> 77

<212> PRT

<213> Homo sapiens

<400> 67

Met Arg Leu Val Phe Phe Gly Val Ser Ile Ile Leu Val Leu Gly
1 5 10 15

Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly Cys Pro 20 25 30

Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg
35 40 45

Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu Ser Asn 50 55 60

Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu 65 70 75

<210> 68

<211> 121

<212> PRT

<213> Homo sapiens

<400> 68

Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala 1 5 10 15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
20 25 30

Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln 35 40 45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu 50 55 60

Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg 65 70 75 80

Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln 85 90 95

Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly 100 105 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu 115 120

<210> 69

<211> 26

<212> PRT

<213> Homo sapiens

<400> 69

Met Val Val Met Glu Val Leu Met Thr Met Val Ala Ile Ile Ile Thr 1 5 10 15

Ala Met Gly Met Met Ala Leu Met Thr Glu 20 25

<210> 70

<211> 235

<212> PRT

<213> Homo sapiens

<400> 70

Met Pro Trp Val Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val 1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp 20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro 50 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu 65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr 85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp 100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val

115 120 125

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser 130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser 145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser 165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn 180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp 195 200 205

Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr 210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser 225 230 235

<210> 71

<211> 217

<212> PRT

<213> Homo sapiens

<400> 71

Met Asp Ser Gln Gln Ala Ser Gly Thr Ile Val Gln Ile Val Ile Asn
1 5 10 15

Asn Lys His Lys His Gly Gln Val Cys Val Ser Asn Gly Lys Thr Tyr 20 25 30

Ser His Gly Glu Ser Trp His Pro Asn Leu Arg Ala Phe Gly Ile Val 35 40 45

Glu Cys Val Leu Cys Thr Cys Asn Val Thr Lys Gln Glu Cys Lys 50 55 60

Ile His Cys Pro Asn Arg Tyr Pro Cys Lys Tyr Pro Gln Lys Ile Asp
65 70 75 80

Gly Lys Cys Cys Lys Val Cys Pro Glu Glu Leu Pro Gly Gln Ser Phe 85 90 95

Asp Asn Lys Gly Tyr Phe Cys Gly Glu Glu Thr Met Pro Val Tyr Glu 100 105 110

Ser Val Phe Met Glu Asp Gly Glu Thr Thr Arg Lys Ile Ala Leu Glu 115 120 125

Thr Glu Arg Pro Pro Gln Val Glu Val His Val Trp Thr Ile Arg Lys 130 135 140

Gly Ile Leu Gln His Phe His Ile Glu Lys Ile Ser Lys Arg Met Phe 145 150 155 160

Glu Glu Leu Pro His Phe Lys Leu Val Thr Arg Thr Thr Leu Ser Gln

165 170 175

Trp Lys Ile Phe Thr Glu Gly Glu Ala Gln Ile Ser Gln Met Cys Ser 180 185 190

Ser Arg Val Cys Arg Thr Glu Leu Glu Asp Leu Val Lys Val Leu Tyr 195 200 205

Leu Glu Arg Ser Glu Lys Gly His Cys 210 215

<210> 72

<211> 492

<212> PRT

<213> Homo sapiens

<400> 72

Met Lys Ala Phe His Thr Phe Cys Val Val Leu Leu Val Phe Gly Ser

1 5 10 15

Val Ser Glu Ala Lys Phe Asp Asp Phe Glu Asp Glu Glu Asp Ile Val 20 25 30

Glu Tyr Asp Asp Asn Asp Phe Ala Glu Phe Glu Asp Val Met Glu Asp 35 40 45

Ser Val Thr Glu Ser Pro Gln Arg Val Ile Ile Thr Glu Asp Asp Glu 50 55 60

Asp Glu Thr Thr Val Glu Leu Glu Gly Gln Asp Glu Asn Gln Glu Gly 65 70 75 80

Asp Phe Glu Asp Ala Asp Thr Gln Glu Gly Asp Thr Glu Ser Glu Pro 85 90 95

Tyr Asp Asp Glu Glu Phe Glu Gly Tyr Glu Asp Lys Pro Asp Thr Ser 100 105 110

Ser Ser Lys Asn Lys Asp Pro Ile Thr Ile Val Asp Val Pro Ala His 115 120 125

Leu Gln Asn Ser Trp Glu Ser Tyr Tyr Leu Glu Ile Leu Met Val Thr 130 135 140

Gly Leu Leu Ala Tyr Ile Met Asn Tyr Ile Ile Gly Lys Asn Lys Asn 145 150 155 160

Ser Arg Leu Ala Gln Ala Trp Phe Asn Thr His Arg Glu Leu Leu Glu 165 170 175

Ser Asn Phe Thr Leu Val Gly Asp Asp Gly Thr Asn Lys Glu Ala Thr 180 185 190

Ser Thr Gly Lys Leu Asn Gln Glu Asn Glu His Ile Tyr Asn Leu Trp 195 200 205

Cys Ser Gly Arg Val Cys Cys Glu Gly Met Leu Ile Gln Leu Arg Phe 210 215 220

Leu Lys Arg Gln Asp Leu Leu Asn Val Leu Ala Arg Met Met Arg Pro

Val Ser Asp Gln Val Gln Ile Lys Val Thr Met Asn Asp Glu Asp Met 245 250 255

Asp Thr Tyr Val Phe Ala Val Gly Thr Arg Lys Ala Leu Val Arg Leu 260 265 270

Gln Lys Glu Met Gln Asp Leu Ser Glu Phe Cys Ser Asp Lys Pro Lys 275 280 285

Ser Gly Ala Lys Tyr Gly Leu Pro Asp Ser Leu Ala Ile Leu Ser Glu 290 295 300

Met Gly Glu Val Thr Asp Gly Met Met Asp Thr Lys Met Val His Phe 305 310 315 320

Leu Thr His Tyr Ala Asp Lys Ile Glu Ser Val His Phe Ser Asp Gln 325 330 335

Phe Ser Gly Pro Lys Ile Met Gln Glu Glu Gly Gln Pro Leu Lys Leu 340 345 350

Pro Asp Thr Lys Arg Thr Leu Leu Phe Thr Phe Asn Val Pro Gly Ser 355 360 365

Gly Asn Thr Tyr Pro Lys Asp Met Glu Ala Leu Leu Pro Leu Met Asn 370 375 380

Met Val Ile Tyr Ser Ile Asp Lys Ala Lys Lys Phe Arg Leu Asn Arg 385 390 395 400

Glu Gly Lys Gln Lys Ala Asp Lys Asn Arg Ala Arg Val Glu Glu Asn 405 410 415

Phe Leu Lys Leu Thr His Val Gln Arg Gln Glu Ala Ala Gln Ser Arg 420 425 430

Arg Glu Glu Lys Lys Arg Ala Glu Lys Glu Arg Ile Met Asn Glu Glu 435 440 445

Asp Pro Glu Lys Gln Arg Arg Leu Glu Glu Ala Ala Leu Arg Arg Glu 450 455 460

Gln Lys Lys Leu Glu Lys Lys Gln Met Lys Met Lys Gln Ile Lys Val 465 470 475 480

Lys Ala His Val Lys Pro Ser Gln Arg Phe Glu Phe 485 490

<210> 73

<211> 36

<212> PRT

<213> Homo sapiens

<400> 73

Met Leu Phe Leu Cys Leu Leu Pro Ser Leu Phe Pro Pro Gly Leu Pro 1 15

Thr Thr His Tyr Ile Thr Ser Ile Cys Asn Gln Ser Cys Tyr His His

20 25 30

Cys Ala Arg Ala 35

<210> 74

<211> 74

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (7)

<223> Xaa equals any of the naturally occurring L-amino acids

and the second s

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 74

Met Ala Glu Leu Leu Xaa Val Leu Ser Val Gln Ser Ala Val His 1 5 10 15

Glu Val Glu Ala Asn Glu Gly Gly Lys Gln Ser His Thr Pro Ala His 20 25 30

Arg Gly Trp Asn Arg Arg Ala Ala Glu Val Arg Lys Ala Arg Leu Pro
35 40 45

Leu Gly Val Thr Val Gly Pro Arg Cys Arg His Ala Val His Pro Ser 50 55 60

Lys Gly Gly Ile Ser Ala Xaa Ala Val Leu 65 70

<210> 75

<211> 133

<212> PRT

<213> Homo sapiens

<400> 75

Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu 1 5 10 15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg 20 25 30

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys 35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser 50 60

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro 65 70 75 80

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp 85 90 95

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly
100 105 110

Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys 115 120 125

Asn Lys Arg Phe Pro 130

<210> 76

<211> 298

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (42)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (58)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 76

Met Ala Arg Arg Ser Arg His Arg Leu Leu Leu Leu Leu Leu Arg Tyr

1 5 10 15

Leu Val Val Ala Leu Gly Tyr His Lys Ala Tyr Gly Phe Ser Ala Pro 20 25 30

Lys Asp Gln Gln Val Val Thr Ala Val Xaa Tyr Gln Glu Ala Ile Leu

Ala Cys Lys Thr Pro Lys Lys Thr Val Xaa Ser Arg Leu Glu Trp Lys 50 55 60

Lys Leu Gly Arg Ser Val Ser Phe Val Tyr Tyr Gln Gln Thr Leu Gln 65 70 75 80

Gly Asp Phe Lys Asn Arg Ala Glu Met Ile Asp Phe Asn Ile Arg Ile 85 90 95

Lys Asn Val Thr Arg Ser Asp Ala Gly Lys Tyr Arg Cys Glu Val Ser 100 105 110

Ala Pro Ser Glu Gln Gly Gln Asn Leu Glu Glu Asp Thr Val Thr Leu 115 120 125

Glu Val Leu Val Ala Pro Ala Val Pro Ser Cys Glu Val Pro Ser Ser 130 135 140

Asn Pro Ala Pro Glu Tyr Thr Trp Phe Lys Asp Gly Ile Arg Leu Leu 165 170 175

Glu Asn Pro Arg Leu Gly Ser Gln Ser Thr Asn Ser Ser Tyr Thr Met

180 Asn Thr Lys Thr Gly Thr Leu Gln Phe Asn Thr Val Ser Lys Leu Asp 200 195 Thr Gly Glu Tyr Ser Cys Glu Ala Arg Asn Ser Val Gly Tyr Arg Arg 215 Cys Pro Gly Lys Arg Met Gln Val Asp Asp Leu Asn Ile Ser Gly Ile 230 Ile Ala Ala Val Val Val Ala Leu Val Ile Ser Val Cys Gly Leu 250 245 Gly Val Cys Tyr Ala Gln Arg Lys Gly Tyr Phe Ser Lys Glu Thr Ser 265 260 Phe Gln Lys Ser Asn Ser Ser Ser Lys Ala Thr Thr Met Ser Glu Asn 280 Asp Phe Lys His Thr Lys Ser Phe Ile Ile 295 290 <210> 77 <211> 856 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (52) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (233) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (595) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE

Trp Ile Ser Glu Asn Arg Lys Met Val Pro Val Pro Glu Gly Ala Tyr 30 2.5 20

Met Asp Ile Ser Lys Gly Leu Pro Gly Met Gln Gly Gly Leu His Ile

<223> Xaa equals any of the naturally occurring L-amino acids

<222> (683)

<400> 77

Gly Asn Phe Phe Glu Glu His Cys Tyr Val Ile Leu His Val Pro Gln Ser Pro Lys Xaa Thr Gln Gly Ala Ser Ser Asp Leu His Tyr Trp Val 55 Gly Lys Gln Ala Gly Ala Glu Ala Gln Gly Ala Ala Glu Ala Phe Gln 70 Gln Arg Leu Gln Asp Glu Leu Gly Gly Gln Thr Val Leu His Arg Glu 90 Ala Gln Gly His Glu Ser Asp Cys Phe Cys Ser Tyr Phe Arg Pro Gly Ile Ile Tyr Arg Lys Gly Gly Leu Ala Ser Asp Leu Lys His Val Glu Thr Asn Leu Phe Asn Ile Gln Arg Leu Leu His Ile Lys Gly Arg Lys 130 His Val Ser Ala Thr Glu Val Glu Leu Ser Trp Asn Ser Phe Asn Lys 150 Gly Asp Ile Phe Leu Leu Asp Leu Gly Lys Met Met Ile Gln Trp Asn 165 Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala Arg Gly Leu Xaa Leu Thr Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly Arg Ala Gln Ile Gly 195 Val Val Asp Asp Glu Ala Lys Ala Pro Asp Leu Met Gln Ile Met Glu 220 215 Ala Val Leu Gly Arg Arg Val Gly Xaa Leu Arg Ala Ala Thr Pro Ser 235 225 230 Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn Val Arg Leu Tyr His Val 250 245 Tyr Glu Lys Gly Lys Asp Leu Val Val Leu Glu Leu Ala Thr Pro Pro 260 Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp Phe Tyr Ile Leu Asp Gln 280 Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly Arg Met Ser Ser Leu Gln 300 295 Glu Arg Lys Ala Ala Phe Ser Arg Ala Val Gly Phe Ile Gln Ala Lys 310 Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val Val Asn Asp Gly Ala Glu

330

Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr Trp Ser Glu Lys Arg Arg 340 345 350

Arg Asn Gln Lys Leu Gly Gly Arg Asp Lys Ser Ile His Val Lys Leu

335

355 360 365

Asp Val Gly Lys Leu His Thr Gln Pro Lys Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu Val Trp Cys Ile Gln Asp 395 Leu His Arg Gln Pro Val Asp Pro Lys Arg His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr Gln Arg Leu Gly Arg Val 420 Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His Gln Ala Thr Ala Asp Glu 435 Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu Leu Asp Val Met Tyr Gly 455 Gly Val Leu Val Gln Glu His Val Thr Met Gly Ser Glu Pro Pro His 470 465 Phe Leu Ala Ile Phe Gln Gly Gln Leu Val Ile Phe Gln Glu Arg Ala 490 485 Gly His His Gly Lys Gly Gln Ser Ala Ser Thr Thr Arg Leu Phe Gln 500 Val Gln Gly Thr Asp Ser His Asn Thr Arg Thr Met Glu Val Pro Ala 520 Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe Leu Leu Val Thr Ala 530 535 Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Cys Asn Gly Asp Gln Arg 550 Glu Met Ala Arg Val Val Val Thr Val Ile Ser Arg Lys Asn Glu Glu 570 565 Thr Val Leu Glu Gly Gln Glu Pro Pro His Phe Trp Glu Ala Leu Gly 585 Gly Arg Xaa Pro Tyr Pro Ser Asn Lys Arg Leu Pro Glu Glu Val Pro 600 595 Ser Phe Gln Pro Arg Leu Phe Glu Cys Ser Ser His Met Gly Cys Leu 615 Val Leu Ala Glu Val Gly Phe Phe Ser Gln Glu Asp Leu Asp Lys Tyr 635 630 Asp Ile Met Leu Leu Asp Thr Trp Gln Glu Ile Phe Leu Trp Leu Gly 650 Glu Ala Ala Ser Glu Trp Lys Glu Ala Val Ala Trp Gly Gln Glu Tyr 665 Leu Lys Thr His Pro Ala Gly Arg Ser Pro Xaa Thr Pro Ile Val Leu 685 680 675

Val Lys Gln Gly His Glu Pro Pro Thr Phe Ile Gly Trp Phe Phe Thr 690 695 700

Trp Asp Pro Tyr Lys Trp Thr Ser His Pro Ser His Lys Glu Val Val 705 710 715 720

Asp Gly Ser Pro Ala Ala Ala Ser Thr Ile Ser Glu Ile Thr Ala Glu
725 730 735

Val Asn Asn Phe Arg Leu Ser Arg Trp Pro Gly Asn Gly Arg Ala Gly 740 745 750

Ala Val Ala Leu Gln Ala Leu Lys Gly Ser Gln Asp Ser Ser Glu Asn 755 760 . 765

Asp Leu Val Arg Ser Pro Lys Ser Ala Gly Ser Arg Thr Ser Ser Ser 770 780

Val Ser Ser Thr Ser Ala Thr Ile Asn Gly Gly Leu Arg Arg Glu Gln 785 790 795 800

Leu Met His Gln Ala Val Glu Asp Leu Pro Glu Gly Val Asp Pro Ala 805 810 815

Arg Arg Glu Phe Tyr Leu Ser Asp Ser Asp Phe Gln Asp Ile Phe Gly 820 825 830

Lys Ser Lys Glu Glu Phe Tyr Ser Met Ala Thr Trp Arg Gln Arg Gln 835 840 845

Glu Lys Lys Gln Leu Gly Phe Phe 850 855

<210> 78

<211> 39

<212> PRT

<213> Homo sapiens

<400> 78

Met Pro Cys Val Phe Cys Tyr Leu Leu Leu Leu Val Gln Phe Thr Tyr 1 5 10 15

Thr Phe Thr Leu Ser Asn Pro Asn Ser Ser Ser Arg Pro Asp Ser Asp 20 25 30

Phe Asn Phe Leu Lys Ala Ile 35

<210> 79

<211> 30

<212> PRT

<213> Homo sapiens

<400> 79

Met Ala Leu Ser Val Leu Val Leu Leu Leu Leu Ala Val Leu Tyr Glu 1 5 10 15

Gly Ile Lys Val Gly Lys Ala Ser Cys Ser Thr Arg Tyr Trp

<210> 80

<211> 45

<212> PRT

<213> Homo sapiens

20

<400> 80

Met Pro Ala Leu Val Leu Pro Arg Val Leu Pro Pro Gly Gln Gly

Glu Val Gln Arg Val Arg Cys Pro Tyr Val Gly Asn Ser Ser Gly Arg 25 20

Lys Ile Trp Phe Gly Phe Ile Leu Arg Ala Ile Lys His 40

<210> 81

<211> 39

<212> PRT

<213> Homo sapiens

<400> 81

Met Glu Ala Lys Phe Gly Leu Leu Cys Phe Leu Val Ser Thr Pro Trp

Ala Glu Leu Leu Ser Leu Leu Leu His Leu Thr Gln Val Pro Phe Pro 25 20

Gly Ser Gln Gly Pro Gly Phe 35

<210> 82

<211> 36

<212> PRT

<213> Homo sapiens

<400> 82

Met Leu Ser Phe Lys Leu Leu Leu Ala Val Ala Leu Gly Phe Phe

Glu Gly Asp Ala Lys Phe Gly Glu Arg Asn Glu Gly Ser Gly Gln Gly

Gly Glu Gly Ala 35

<210> 83

<211> 293

<212> PRT

<213> Homo sapiens

<400> 83

Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro Arg Leu Ser Arg

Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu Leu Ser Ala Ala

Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His Gly Leu Pro Thr 40

Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu

Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser 70

Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val

Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu 105 100

Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu 120

Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp 135

Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe 150

Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp 170 165

Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp 185

Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser 200

Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys 215

Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser 235 230

Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu 250 245

Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly Asp Asn Ile Pro 260 265

Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val Ser Asp Gly Glu 285 280

Asn Lys Lys Asp Lys 290

<210> 84

<211> 143

<212> PRT

<213> Homo sapiens

<400> 84

Met Arg Gly Leu Gly Leu Trp Leu Leu Gly Ala Met Met Leu Pro Ala

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val 20 25 30

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser 35 40 45

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr
50 55 60

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly 65 70 75 80

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr 85 90 95

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu 100 105 110

Gly Thr Gly Leu Ser Arg Gln Pro Gln His Leu Cys Arg Pro Gln Gly
115 120 125

Phe Leu Pro Gly Gly Val Arg Pro Ala Pro Asp Arg Ala Pro Gly 130 135 140

<210> 85

1

<211> 121

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (67)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (89)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 85

Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala 1 5 10 15

Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro
O 20 25 30

Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln 35 40 45

Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu 50 55 60

Ser Gln Xaa Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg 65 70 75 .80

Asp Met His Asp Phe Phe Val Gly Xaa Met Gly Lys Arg Ser Val Gln 85 90 95 Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly
100 105 110

Ile Leu Lys Tyr Pro Pro Arg Ala Glu 115 120

<210> 86

<211> 25

<212> PRT

<213> Homo sapiens

<400> 86

Met Val Leu Met Val Trp Val Val Met Ala Val Val Val Glu Ala 1 5 10 15

Val Glu Val Thr Met Gly Lys Ala Ala 20 25

<210> 87

<211> 4

<212> PRT

<213> Homo sapiens

<400> 87

Ser Leu His Ala 1

<210> 88 <211> 235

<212> PRT

<213> Homo sapiens

<400> 88

Met Pro Trp Val Leu Leu Leu Thr Leu Leu Thr His Ser Ala Val 1 5 10 15

Ser Val Val Gln Ala Gly Leu Thr Gln Pro Pro Ser Val Ser Lys Asp 20 25 30

Leu Arg Gln Thr Ala Thr Leu Thr Cys Thr Gly Asn Asn Asn Asn Val 35 40 45

Gly Asp Gln Gly Ala Ala Trp Leu Gln Gln His Gln Gly His Pro Pro 50 55 60

Lys Leu Leu Ser Tyr Arg Asn Asn Asn Arg Pro Ser Gly Ile Ser Glu 65 70 75 80

Arg Leu Ser Ala Ser Arg Ser Gly Ala Thr Ser Ser Leu Thr Ile Thr 85 90 95

Gly Leu Gln Pro Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Tyr Asp 100 105 110

Ser Ser Leu Ala Val Trp Met Phe Gly Gly Gly Thr Lys Leu Thr Val 115 120 125

Leu Gly Gln Pro Lys Ala Ala Pro Ser Val Thr Leu Phe Pro Pro Ser

130 135 140

Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser 145 150 155 160

Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser 165 170 175

Pro Val Lys Ala Gly Val Glu Thr Thr Pro Ser Lys Gln Ser Asn 180 185 190

Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp
195 200 205

Lys Ser His Lys Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr 210 215 220

Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser 225 230 235

<210> 89

<211> 87

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (11)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 89

Met Ser Leu Asn Val Leu Leu Ala Leu Phe Xaa Leu Leu Leu Ala Lys $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Glu Ser Ser Cys Arg Ile Pro Ala Ala Arg Gly Asp Pro Leu Val Leu $20 \hspace{1cm} 25 \hspace{1cm} 30$

Glu Arg Pro Pro Pro Arg Trp Glu Leu Gln Leu Leu Val Pro Phe Ser 35 40 45

Glu Gly Leu Ile Ser Ser Leu Ala Val Ile Met Gly His Ser Leu Phe 50 60

Pro Gly Val Glu Ile Gly Tyr Pro Ala His Lys Phe His Asn Asn Asn 65 70 75 80

Thr Ser Arg Lys His Xaa Val 85

<210> 90

<211> 106

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (22)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 90

Met Ala Leu His Gly Phe His Phe Asp Leu Phe His Phe His Leu Leu

Leu Phe Gln Leu Leu Xaa Leu Thr Pro Gln Cys Ser Leu Leu Gln Pro

Ala Leu Phe Leu Arg Ile Phe Leu Ile His Asp Ser Leu Leu Cys

Ser Phe Phe Leu Leu Pro Pro Arg Leu Cys Cys Phe Leu Ser Leu His

Met Cys Gln Phe Gln Glu Val Leu Phe Tyr Ser Gly Thr Val Leu Ile

Cys Phe Leu Phe Ala Phe Ser Val Glu Ser Glu Leu Phe Gly Phe Ile 90

Asn Arg Ile Asn His His Val His Gln Gly

<210> 91

<211> 59

<212> PRT

<213> Homo sapiens

<400> 91

Met Tyr Ala Lys Cys Gln Lys Lys Leu Ala Pro Ala Trp Leu Ile Phe

Phe Ile Gly Gly Met Thr Arg Lys Ile Ile Leu Ala Pro Cys Leu Ser 25

Met Val Ala Ala Arg Gly Asn Asn Asn Phe Gln Ser Lys Ala Asn

Cys Leu Asn Thr Cys Lys Asn Lys Arg Phe Pro 55

<210> 92

<211> 32

<212> PRT

<213> Homo sapiens

<400> 92

Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile Phe

Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly Leu 25

<210> 93

<211> 178

<212> PRT

<213> Homo sapiens

<400> 93

Phe Ser Val Thr Asn Asn Thr Glu Cys Gly Lys Leu Leu Glu Glu Ile
1 5 10 15

Lys Cys Ala Leu Cys Ser Pro His Ser Gln Ser Leu Phe His Ser Pro 20 25 30

Glu Arg Glu Val Leu Glu Arg Asp Leu Val Leu Pro Leu Leu Cys Lys 35 40 45

Asp Tyr Cys Lys Glu Phe Phe Tyr Thr Cys Arg Gly His Ile Pro Gly 50 55 60

Phe Leu Gln Thr Thr Ala Asp Glu Phe Cys Phe Tyr Tyr Ala Arg Lys
65 70 75 80

Asp Gly Gly Leu Cys Phe Pro Asp Phe Pro Arg Lys Gln Val Arg Gly
85 90 95

Pro Ala Ser Asn Tyr Leu Asp Gln Met Glu Glu Tyr Asp Lys Val Glu
100 105 110

Glu Ile Ser Arg Lys His Lys His Asn Cys Phe Cys Ile Gln Glu Val 115 120 125

Val Ser Gly Leu Arg Gln Pro Val Gly Ala Leu His Ser Gly Asp Gly 130 135 140

Ser Gln Arg Leu Phe Ile Leu Glu Lys Glu Gly Tyr Val Lys Ile Leu 145 150 155 160

Thr Pro Glu Gly Glu Ile Phe Lys Glu Pro Tyr Leu Asp Ile His Lys 165 170 175

Leu Val

<210> 94

<211> 216

<212> PRT

<213> Homo sapiens

<400> 94

Asp Gly Asn Pro Cys Asp Phe Asp Trp Arg Glu Val Glu Ile Leu Met

1 5 10 15

Phe Leu Ser Ala Ile Val Met Met Lys Asn Arg Arg Ser Ile Thr Val 20 25 30

Glu Gln His Ile Gly Asn Ile Phe Met Phe Ser Lys Val Ala Asn Thr 35 40

Ile Leu Phe Phe Arg Leu Asp Ile Arg Met Gly Leu Leu Tyr Ile Thr

50 55 60

Leu Cys Ile Val Phe Leu Met Thr Cys Lys Pro Pro Leu Tyr Met Gly 65 70 75 80

Pro Glu Tyr Ile Lys Tyr Phe Asn Asp Lys Thr Ile Asp Glu Glu Leu 85 90 95

Glu Arg Asp Lys Arg Val Thr Trp Ile Val Glu Phe Phe Ala Asn Trp
100 105 110

Ser Asn Asp Cys Gln Ser Phe Ala Pro Ile Tyr Ala Asp Leu Ser Leu 115 120 125

Lys Tyr Asn Cys Thr Gly Leu Asn Phe Gly Lys Val Asp Val Gly Arg 130 135 140

Tyr Thr Asp Val Ser Thr Arg Tyr Lys Val Ser Thr Ser Pro Leu Thr 145 150 155 160

Lys Gln Leu Pro Thr Leu Ile Leu Phe Gln Gly Gly Lys Glu Ala Met 165 170 175

Arg Arg Pro Gln Ile Asp Lys Lys Gly Arg Ala Val Ser Trp Thr Phe 180 185 190

Ser Glu Glu Asn Val Ile Arg Glu Phe Asn Leu Asn Glu Leu Tyr Gln 195 200 205

Arg Ala Lys Lys Leu Ser Lys Ala 210 215

<210> 95

<211> 196

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (141)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 95

Gln Leu Ile Val Thr Ala Arg Thr Thr Arg Gly Leu Asp Pro Leu Phe 1 5 10 15

Gly Met Cys Glu Lys Phe Leu Gln Glu Val Asp Phe Phe Gln Arg Tyr
20 25 30

Phe Ile Ala Asp Leu Pro His Leu Gln Asp Ser Phe Val Asp Lys Leu 35 40 45

Leu Asp Leu Met Pro Arg Leu Met Thr Ser Lys Pro Ala Glu Val Val 50 55 60

Lys Ile Leu Gln Thr Met Leu Arg Gln Ser Ala Phe Leu His Leu Pro 65 70 75 80

Leu Pro Glu Gln Ile His Lys Ala Ser Ala Thr Ile Ile Glu Pro Ala 85 90 95 Gly Glu Phe Arg Gln Pro Phe Ala Val Tyr Leu Trp Val Gly Gly Cys
100 105 110

Pro Gly Met Leu Met Gln Pro Trp Ser Met Cys Arg Ile Leu Arg Thr 115 120 125

Leu Leu Arg Ser Arg Val Leu Tyr Pro Asp Gly Gln Xaa Ser Asp Asp 130 135 140

Ser Pro Gln Ala Cys Arg Leu Pro Glu Ser Trp Pro Arg Ala Ala Pro 145 150 155 160

Ala His His Ser Gly Leu Ser Leu Pro His Arg Leu Asp Arg Gly Met 165 170 175

Pro Gly Gly Ser Glu Ala Ala Ala Gly Leu Gln Leu Gln Cys Ser His 180 185 190

Ser Lys Met Pro 195

<210> 96

<211> 255

<212> PRT

<213> Homo sapiens

<400> 96

Ile His Leu Ala Leu Val Glu Leu Leu Lys Asn Leu Thr Lys Tyr Pro 1 5 10 15

Thr Asp Arg Asp Ser Ile Trp Lys Cys Leu Lys Phe Leu Gly Ser Arg 20 25 30

His Pro Thr Leu Val Leu Pro Leu Val Pro Glu Leu Leu Ser Thr His 35 40 45

Pro Phe Phe Asp Thr Ala Glu Pro Asp Met Asp Asp Pro Ala Tyr Ile $50 \hspace{1cm} 55 \hspace{1cm} 60$

Ala Val Leu Val Leu Ile Phe Asn Ala Ala Lys Thr Cys Pro Thr Met 65 70 75 80

Pro Ala Leu Phe Ser Asp His Thr Phe Arg His Tyr Ala Tyr Leu Arg 85 90 95

Asp Ser Leu Ser His Leu Val Pro Ala Leu Arg Leu Pro Gly Arg Lys
100 105 110

Leu Val Ser Ser Ala Val Ser Pro Ser Ile Ile Pro Gln Glu Asp Pro 115 120 125

Ser Gln Gln Phe Leu Gln Gln Ser Leu Glu Arg Val Tyr Ser Leu Gln 130 135 140

His Leu Asp Pro Gln Gly Ala Gln Glu Leu Leu Glu Phe Thr Ile Arg 145 150 155 160

Asp Leu Gln Arg Leu Gly Glu Leu Gln Ser Glu Leu Ala Gly Val Ala 165 170 175 Asp Phe Ser Ala Thr Tyr Leu Arg Cys Gln Leu Leu Leu Ile Lys Ala 185

Leu Gln Glu Lys Leu Trp Asn Val Ala Ala Pro Leu Tyr Leu Lys Gln 200

Ser Asp Leu Ala Ser Ala Ala Ala Lys Gln Ile Met Glu Glu Thr Tyr 215

Lys Met Glu Phe Met Tyr Ser Gly Val Glu Asn Lys Gln Val Val Ile

Ile His His Met Arg Leu Gln Ala Lys Ala Leu Gln Leu Ile Val 250

<210> 97

<211> 137

<212> PRT

<213> Homo sapiens

<400> 97

Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr Gly 10

Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val Leu

Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe Ser

Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn Met 55

Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala Met

Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Gly Ile Ile Pro Phe

Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala Ile 105

Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln Leu 120

Pro Pro Asn Phe Pro Tyr Arg Asp Asp 135 130

<210> 98

<211> 87

<212> PRT

<213> Homo sapiens

<400> 98

Phe Pro Thr Glu Met Met Ser Cys Ala Val Asn Pro Thr Cys Leu Val

Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr Phe Lys Gly Tyr

Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile Asn Gly Arg Asn 40

Ser Ser Asp Val Leu Val Tyr Val Thr Ser Asn Asp Thr Thr Val Leu 55

Leu Pro Pro Tyr Asp Asp Ala Thr Val Asn Gly Ala Ala Lys Glu Pro 70

Pro Pro Pro Tyr Val Ser Ala 85

<210> 99

<211> 97

<212> PRT

<213> Homo sapiens

<400> 99

Ile Ala Pro Ser Arg Pro Trp Ala Leu Met Glu Gln Tyr Glu Val Val 10

Leu Pro Trp Arg Leu Pro Gly Pro Arg Val Arg Arg Ala Leu Pro Ser 20

His Leu Gly Leu His Pro Glu Arg Val Ser Tyr Val Leu Gly Ala Thr

Gly His Asn Phe Thr Leu His Leu Arg Lys Asn Arg Asp Leu Leu Gly 60 50 55

Ser Gly Tyr Thr Glu Thr Tyr Thr Ala Ala Asn Gly Ser Glu Val Thr 70

Glu Gln Pro Arg Gly Gln Asp His Cys Phe Tyr Gln Gly His Leu Glu

Gly

<210> 100

<211> 240

<212> PRT

<213> Homo sapiens

<400> 100

Pro Asp Ser Ala Ala Ser Leu Ser Thr Cys Ala Gly Leu Arg Gly Phe 10

Phe Gln Val Gly Ser Asp Leu His Leu Ile Glu Pro Leu Asp Glu Gly 30 25

Gly Glu Gly Gly Arg His Ala Val Tyr Gln Ala Glu His Leu Leu Gln

Thr Ala Gly Thr Cys Gly Val Ser Asp Asp Ser Leu Gly Ser Leu Leu 60 55

Gly Pro Arg Thr Ala Ala Val Phe Arg Pro Arg Pro Gly Asp Ser Leu Pro Ser Arg Glu Thr Arg Tyr Val Glu Leu Tyr Val Val Val Asp Asn Ala Glu Phe Gln Met Leu Gly Ser Glu Ala Ala Val Arg His Arg Val 100 Leu Glu Val Val Asn His Val Asp Lys Leu Tyr Gln Lys Leu Asn Phe 120 Arg Val Val Leu Val Gly Leu Glu Ile Trp Asn Ser Gln Asp Arg Phe 135 130 His Val Ser Pro Asp Pro Ser Val Thr Leu Glu Asn Leu Leu Thr Trp 150 155 Gln Ala Arg Gln Arg Thr Arg Arg His Leu His Asp Asn Val Gln Leu 170 165 Ile Thr Gly Val Asp Phe Thr Gly Thr Thr Val Gly Phe Ala Arg Val 185 180 Ser Ala Met Cys Ser His Ser Ser Gly Ala Val Asn Gln Asp His Ser 200 Lys Asn Pro Val Gly Val Ala Cys Thr Met Ala His Glu Met Gly His 215 Asn Leu Gly Met Asp His Asp Glu Asn Val Gln Gly Cys Arg Cys Gln

<210> 101 <211> 118 <212> PRT <213> Homo sapiens

230

Phe Pro Arg Met Phe Ser Asp Cys Ser Gln Ala Tyr Leu Glu Ser Phe 20 25 30

Leu Glu Arg Pro Gln Ser Val Cys Leu Ala Asn Ala Pro Asp Leu Ser 35 40 45

His Leu Val Gly Gly Pro Val Cys Gly Asn Leu Phe Val Glu Arg Gly 50 55 60

Glu Gln Cys Asp Cys Gly Pro Pro Glu Asp Cys Arg Asn Arg Cys Cys
65 70 75 80

Asn Ser Thr Thr Cys Gln Leu Ala Glu Gly Ala Gln Cys Ala His Gly 85 90 95

235

240

Thr Cys Cys Gln Glu Cys Lys Val Lys Pro Ala Gly Glu Leu Cys Arg 100 105 110

Pro Lys Lys Asp Met Cys 115

<210> 102

<211> 471

<212> PRT

<213> Homo sapiens

<400> 102

Gly Ser Gln Glu Glu Arg Phe Ala Pro Gly Trp Asn Arg Asp Tyr Pro 1 5 10 15

Pro Pro Pro Leu Lys Ser His Ala Gln Glu Arg His Ser Gly Asn Phe 20 25 30

Pro Gly Arg Asp Ser Leu Pro Phe Asp Phe Gln Gly His Ser Gly Pro
.35 40 45

Pro Phe Ala Asn Val Glu Glu His Ser Phe Ser Tyr Gly Ala Arg Asp 50 55 60

Gly Pro His Gly Asp Tyr Arg Gly Glu Gly Pro Gly His Asp Phe 65 70 75 80

Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser 85 90 95

Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp 100 105 110

Arg Glu Gly Pro Pro Met Asp Tyr Arg Gly Gly Asp Gly Thr Ser Met 115 120 125

Asp Tyr Arg Gly Arg Glu Ala Pro His Met Asn Tyr Arg Asp Arg Asp 130 135 140

Ala His Ala Val Asp Phe Arg Gly Arg Asp Ala Pro Pro Ser Asp Phe 145 150 155 160

Arg Gly Arg Gly Thr Tyr Asp Leu Asp Phe Arg Gly Arg Asp Gly Ser 165 170 175

His Ala Asp Phe Arg Gly Arg Asp Leu Ser Asp Leu Asp Phe Arg Ala 180 185 190

Arg Glu Gln Ser Arg Ser Asp Phe Arg Asn Arg Asp Val Ser Asp Leu 195 200 205

Asp Phe Arg Asp Lys Asp Gly Thr Gln Val Asp Phe Arg Gly Arg Gly 210 215 220

Ser Gly Thr Thr Asp Leu Asp Phe Arg Asp Arg Asp Thr Pro His Ser 225 230 235 240

Asp Phe Arg Gly Arg His Arg Ser Arg Thr Asp Gln Asp Phe Arg Gly 245 250 255

Arg Glu Met Gly Ser Cys Met Glu Phe Lys Asp Arg Glu Met Pro Pro 260 265 270

Val Asp Pro Asn Ile Leu Asp Tyr Ile Gln Pro Ser Thr Gln Asp Arg
275 280 285

Glu His Ser Gly Met Asn Val Asn Arg Arg Glu Glu Ser Thr His Asp 290 295 300

His Thr Ile Glu Arg Pro Ala Phe Gly Ile Gln Lys Gly Glu Phe Glu 305 310 315 320

His Ser Glu Thr Arg Glu Gly Glu Thr Gln Gly Val Ala Phe Glu His 325 330 335

Glu Ser Pro Ala Asp Phe Gln Asn Ser Gln Ser Pro Val Gln Asp Gln 340 345 350

Asp Lys Ser Gln Leu Ser Gly Arg Glu Glu Gln Ser Ser Asp Ala Gly 355 360 365

Leu Phe Lys Glu Glu Gly Gly Leu Asp Phe Leu Gly Arg Gln Asp Thr 370 375 380

Asp Tyr Arg Ser Met Glu Tyr Arg Asp Val Asp His Arg Leu Pro Gly 385 390 395 400

Ser Gln Met Phe Gly Tyr Gly Gln Ser Lys Ser Phe Pro Glu Gly Lys 405 410 415

Thr Ala Arg Asp Ala Gln Arg Asp Leu Gln Asp Gln Asp Tyr Arg Thr 420 425 430

Gly Pro Ser Glu Glu Lys Pro Ser Arg Leu Ile Arg Leu Ser Gly Val 435 440 445

Pro Glu Asp Ala Thr Lys Glu Glu Ile Leu Asn Ala Phe Arg Thr Pro 450 455 460

Asp Gly Met Pro Val Lys Asn 465 470

<210> 103

<211> 125

<212> PRT

<213> Homo sapiens

<400> 103

Gly Leu Gln Asp Ser Ala Arg Gly Gly Ser Gln Glu Glu Arg Phe Ala
1 10 15

Pro Gly Trp Asn Arg Asp Tyr Pro Pro Pro Pro Leu Lys Ser His Ala
20 25 30

Gln Glu Arg His Ser Gly Asn Phe Pro Gly Arg Asp Ser Leu Pro Phe 35 40 45

Asp Phe Gln Gly His Ser Gly Pro Pro Phe Ala Asn Val Glu Glu His 50 55 60

Ser Phe Ser Tyr Gly Ala Arg Asp Gly Pro His Gly Asp Tyr Arg Gly 70 65 Gly Glu Gly Pro Gly His Asp Phe Arg Gly Gly Asp Phe Ser Ser Ser Asp Phe Gln Ser Arg Asp Ser Ser Gln Leu Asp Phe Arg Gly Arg Asp Ile His Ser Gly Asp Phe Arg Asp Arg Glu Gly Pro Pro 120 <210> 104 <211> 330 <212> PRT <213> Homo sapiens <220> <221> SITE <222> (7) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (147) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (181) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (190) <223> Xaa equals any of the naturally occurring L-amino acids <220> <221> SITE <222> (260) <223> Xaa equals any of the naturally occurring L-amino acids <400> 104 Met Leu Pro Asp Trp Lys Xaa Ser Leu Ile Leu Met Ala Tyr Ile Ile Ile Phe Leu Thr Gly Leu Pro Ala Asn Leu Leu Ala Leu Arg Ala Phe Val Gly Arg Ile Arg Gln Pro Gln Pro Ala Pro Val His Ile Leu Leu Leu Ser Leu Thr Leu Ala Asp Leu Leu Leu Leu Leu Leu Pro Phe Lys Ile Ile Glu Ala Ala Ser Asn Phe Arg Trp Tyr Leu Pro Lys Val 75 70

90

Val Cys Ala Leu Thr Ser Phe Gly Phe Tyr Ser Ser Ile Tyr Cys Ser

85

Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly Val Ala 100 105 110

Phe Pro Val Gln Tyr Lys Leu Ser Arg Arg Pro Leu Tyr Gly Val Ile 115 120 125

Ala Ala Leu Val Ala Trp Val Met Ser Phe Gly His Cys Thr Ile Val 130 135 140

Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val Arg Ser Gly Asn 145 150 155 160

Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln Leu Asp Val Val 165 170 175

Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe Phe Xaa Pro Met 180 185 190

Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp Ile Met Leu Ser 195 200 205

Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Arg Ala Val Gly Leu Ala 210 215 220

Val Val Thr Leu Leu Asn Phe Leu Val Cys Phe Gly Pro Tyr Asn Val 225 230 235 240

Ser His Leu Val Gly Tyr His Gln Arg Lys Ser Pro Trp Trp Arg Ser 245 250 255

Ile Ala Val Xaa Phe Ser Ser Leu Asn Ala Ser Leu Asp Pro Leu Leu 260 265 270

Phe Tyr Phe Ser Ser Ser Val Val Arg Arg Ala Phe Gly Arg Gly Leu 275 280 285

Gln Val Leu Arg Asn Gln Gly Ser Ser Leu Leu Gly Arg Arg Gly Lys 290 295 300

Asp Thr Ala Glu Gly Thr Asn Glu Asp Arg Gly Val Gly Gln Gly Glu 305 310 315

Gly Met Pro Ser Ser Asp Phe Thr Thr Glu 325 330

<210> 105

<211> 17

<212> PRT

<213> Homo sapiens

<400> 105

Cys Ser Thr Trp Leu Leu Ala Gly Ile Ser Ile Glu Arg Tyr Leu Gly
1 5 10 15

Val

<210> 106

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<211> 94
<212> PRT
<213> Homo sapiens
<220>
<221> SITE
<222> (7)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (41)
<223> Xaa equals any of the naturally occurring L-amino acids
<220>
<221> SITE
<222> (50)
<223> Xaa equals any of the naturally occurring L-amino acids
<400> 106
Cys Thr Ile Val Ile Ile Xaa Gln Tyr Leu Asn Thr Thr Glu Gln Val
Arg Ser Gly Asn Glu Ile Thr Cys Tyr Glu Asn Phe Thr Asp Asn Gln
Leu Asp Val Val Leu Pro Val Arg Xaa Glu Leu Cys Leu Val Leu Phe
Phe Xaa Pro Met Ala Val Thr Ile Phe Cys Tyr Trp Arg Phe Val Trp
Ile Met Leu Ser Gln Pro Leu Val Gly Ala Gln Arg Arg Arg Ala
Val Gly Leu Ala Val Val Thr Leu Leu Asn Phe Leu Val Cys
 <210> 107
 <211> 143
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> SITE
 <222> (25)
 <223> Xaa equals any of the naturally occurring L-amino acids
 <400> 107
 Gly Leu Pro Ala Ala Arg Val Arg Trp Glu Ser Ser Phe Ser Arg Thr
 Val Val Ala Pro Ser Ala Val Ala Xaa Lys Arg Pro Pro Glu Pro Thr
 Thr Pro Trp Gln Glu Asp Pro Glu Pro Glu Asp Glu Asn Leu Tyr Glu
```

Lys Asn Pro Asp Ser His Gly Tyr Asp Lys Asp Pro Val Leu Asp Val

55

50

Trp Asn Met Arg Leu Val Phe Phe Gly Val Ser Ile Ile Leu Val 70 Leu Gly Ser Thr Phe Val Ala Tyr Leu Pro Asp Tyr Arg Cys Thr Gly 85 Cys Pro Arg Ala Trp Asp Gly Met Lys Glu Trp Ser Arg Arg Glu Ala Glu Arg Leu Val Lys Tyr Arg Glu Ala Asn Gly Leu Pro Ile Met Glu 120 Ser Asn Cys Phe Asp Pro Ser Lys Ile Gln Leu Pro Glu Asp Glu 135 <210> 108 <211> 36 <212> PRT <213> Homo sapiens <400> 108 Pro Glu Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys 10 Arg Ser Val Gln Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val 25. Pro Ser Phe Gly 35 <210> 109 <211> 15 <212> PRT <213> Homo sapiens <400> 109 Lys Arg Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg 10 <210> 110 <211> 10 <212> PRT <213> Homo sapiens . <400> 110 Asp Met His Asp Phe Phe Val Gly Leu Met 5 <210> 111 <211> 16 <212> PRT <213> Homo sapiens <400> 111 Glu Trp Glu Ala Thr Glu Glu Met Glu Trp Ile Ile Arg Glu Ala Met

10

1

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<210> 112
<211> 35
<212> PRT
<213> Homo sapiens
<400> 112
Trp Glu Trp Gly Thr Ile Thr Val Glu Asp Met Val Leu Leu Met Val
                                      10
Trp Val Val Met Ala Val Val Val Glu Ala Val Glu Val Thr Met Gly
                                  25
Lys Ala Ala
<210> 113
<211> 18
<212> PRT
<213> Homo sapiens
<400> 113
Gly Met Gly Gly Tyr Gly Arg Asp Gly Met Asp Asn Gln Gly Gly Tyr
                                      10
Gly Ser
<210> 114
<211> 43
<212> PRT
<213> Homo sapiens
<400> 114
Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
                   5
Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met
                              40
 <210> 115
 <211> 43
 <212> PRT
 <213> Homo sapiens
 <400> 115
 Gly Met Gly Asn Asn Tyr Ser Gly Gly Tyr Gly Thr Pro Asp Gly Leu
                                       10
                   5
 Gly Gly Tyr Gly Arg Gly Gly Gly Gly Ser Gly Gly Tyr Tyr Gly Gln
                                   25
              20
```

Gly Gly Met Ser Gly Gly Gly Trp Arg Gly Met 35 40

<210> 116

<211> 223

<212> PRT

<213> Homo sapiens

<400> 116

Trp Asp Ser Thr Thr Ser Trp Thr Thr Ile Trp Leu Gln Gln Arg Gly
1 5 10 15

Asn Ser Ser Val Leu Ser Arg Val Gly Asn Arg Ala Asn Gly Ile Thr 20 25 30

Leu Thr Met Asp Tyr Gln Gly Arg Ser Thr Gly Glu Ala Phe Val Gln 35 40 45

Phe Ala Ser Lys Glu Ile Ala Glu Asn Ala Leu Gly Lys His Lys Glu 50 55 60

Arg Ile Gly His Arg Tyr Ile Glu Ile Phe Arg Ser Ser Arg Ser Glu 65 70 75 80

Ile Lys Gly Phe Tyr Asp Pro Pro Arg Leu Leu Gly Gln Arg Pro
85 90 95

Gly Pro Tyr Asp Arg Pro Ile Gly Gly Arg Gly Gly Tyr Tyr Gly Ala 100 105 110

Gly Arg Gly Ser Met Tyr Asp Arg Met Arg Arg Gly Gly Asp Gly Tyr 115 120 125

Asp Gly Gly Tyr Gly Gly Phe Asp Asp Tyr Gly Gly Tyr Asn Asn Tyr 130 135 140

Gly Tyr Gly Asn Asp Gly Phe Asp Asp Arg Met Arg Asp Gly Arg Gly 145 150 155 160

Met Gly Gly His Gly Tyr Gly Gly Ala Gly Asp Ala Ser Ser Gly Phe 165 170 175

His Gly Gly His Phe Val His Met Arg Gly Leu Pro Phe Arg Ala Thr 180 185 190

Glu Asn Asp Ile Ala Asn Phe Phe Ser Pro Leu Asn Pro Ile Arg Val 195 200 205

His Ile Asp Ile Gly Ala Asp Gly Arg Ala Gln Glu Lys Gln Met 210 215 220

<210> 117

<211> 26

<212> PRT

<213> Homo sapiens

<400> 117

Phe Thr His Ser Phe Ile Leu Glu His Ala Phe Ser Leu Leu Ile Thr

1 5 10 15

Leu Pro Val Ser Ser Trp Ala Ala Asn Asn 20 25

<210> 118

<211> 384

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (63)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (66)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (187)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 118

Met Met Ile Gln Trp Asn Gly Pro Lys Thr Ser Ile Ser Glu Lys Ala $1 \hspace{1.5cm} 5 \hspace{1.5cm} 10 \hspace{1.5cm} 15$

Arg Gly Leu Xaa Leu Thr Tyr Ser Leu Arg Asp Arg Glu Arg Gly Gly 20 25 30

Gly Arg Ala Gln Ile Gly Val Val Asp Asp Glu Ala Lys Ala Pro Asp 35 40 45

Leu Met Gln Ile Met Glu Ala Val Leu Gly Arg Val Gly Xaa Leu 50 55 60

Arg Xaa Ala Thr Pro Ser Lys Asp Ile Asn Gln Leu Gln Lys Ala Asn 65 70 75 80

Val Arg Leu Tyr His Val Tyr Glu Lys Gly Lys Asp Leu Val Val Leu 85 90 95

Glu Leu Ala Thr Pro Pro Leu Thr Gln Asp Leu Leu Gln Glu Glu Asp
100 105 110

Phe Tyr Ile Leu Asp Gln Gly Gly Phe Lys Ile Tyr Val Trp Gln Gly 115 120 125

Arg Met Ser Ser Leu Gln Glu Arg Lys Ala Ala Phe Ser Arg Ala Val 130 135 140

Gly Phe Ile Gln Ala Lys Gly Tyr Pro Thr Tyr Thr Asn Val Glu Val 145 150 155 160 Val Asn Asp Gly Ala Glu Ser Ala Ala Phe Lys Gln Leu Phe Arg Thr 165 170 175

Trp Ser Glu Lys Arg Arg Arg Asn Gln Lys Xaa Gly Gly Arg Asp Lys
180 185 190

Ser Ile His Val Lys Leu Asp Val Gly Lys Leu His Thr Gln Pro Lys 195 200 205

Leu Ala Ala Gln Leu Arg Met Val Asp Asp Gly Ser Gly Lys Val Glu 210 215 220

Val Trp Cys Ile Gln Asp Leu His Arg Gln Pro Val Asp Pro Lys Arg 225 230 235 240

His Gly Gln Leu Cys Ala Gly Asn Cys Tyr Leu Val Leu Tyr Thr Tyr 245 250 255

Gln Arg Leu Gly Arg Val Gln Tyr Ile Leu Tyr Leu Trp Gln Gly His 260 265 270

Gln Ala Thr Ala Asp Glu Ile Glu Ala Leu Asn Ser Asn Ala Glu Glu 275 280 285

Leu Asp Val Met Tyr Gly Gly Val Leu Val Gln Glu His Val Thr Met 290 295 300

Gly Ser Glu Pro Pro His Phe Leu Ala Ile Phe Gln Gly Gln Leu Val 305 310 315 320

Ile Phe Gln Glu Arg Ala Gly His His Gly Lys Gly Gln Ser Ala Ser 325 330 335

Thr Thr Arg Leu Phe Gln Val Gln Gly Thr Asp Ser His Asn Thr Arg 340 345 350

Thr Met Glu Val Pro Ala Arg Ala Ser Ser Leu Asn Ser Ser Asp Ile 355 360 365

Phe Leu Leu Val Thr Ala Ser Val Cys Tyr Leu Trp Phe Gly Lys Gly 370 375 380

<210> 119

<211> 117

<212> PRT

<213> Homo sapiens

<400> 119

Met Leu Ser Lys Ala His Gly Cys Lys Thr Ala Leu Ser Leu Gly Arg

1 10 15

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys
20 25 30

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser 35 40 45

Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met Pro

50 55 60

Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr Asp 65 70 75 80

Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln Gly 85 90 95

Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys Lys 100 105 110

Asn Lys Arg Phe Pro 115

<210> 120

<211> 102

<212> PRT

<213> Homo sapiens

<400> 120

Arg Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val 1 5 10 15

Cys Thr Lys Asp Arg.Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe
20 25 30

Ser Cys Gly Lys Lys Cys Leu Asp Leu Lys Gln Asp Val Cys Glu Met 35 40 45

Pro Lys Glu Thr Gly Pro Cys Leu Ala Tyr Phe Leu His Trp Trp Tyr 50 55 60

Asp Lys Lys Asp Asn Thr Cys Ser Met Phe Val Tyr Gly Gly Cys Gln 65 70 75 80

Gly Asn Asn Asn Phe Gln Ser Lys Ala Asn Cys Leu Asn Thr Cys
85 90 95

Lys Asn Lys Arg Phe Pro 100

<210> 121

<211> 354

<212> DNA

<213> Homo sapiens

<400> 121

atgctctcta aggcacacgg gtgtaaaacc gctctttccc tagggagatg tcccaaaatc 60 agagaagaat gtgaattcca agaaagggat gtgtgtacaa aggacagaca atgccaggac 120 aacaagaagt gttgtgtctt cagctgcgga aaaaaatgtt tagatctcaa acaagatgta 180 tgcgaaatgc caaaagaaac tggcccctgc ctggcttatt ttcttcattg gtggtatgac 240 aagaaagata atacttgctc catgtttgtc tatggtggct gccagggaaa caataacaac 300 ttccaatcca aagccaactg cctgaacacc tgcaagaata aacgctttcc ctga